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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,520	08/24/2006	Shigeharu Ichiyanagi	292619US40PCT	9805
22850	7590	05/27/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
ALL MOHAMMAD M				
ART UNIT		PAPER NUMBER		
3744				
NOTIFICATION DATE		DELIVERY MODE		
05/27/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
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### Office Action Summary

**Application No.**

10/590,520

**Applicant(s)**

ICHIYANAGI, SHIGEHARU

**Examiner**

MOHAMMAD M. ALI

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date 08/24/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the phrase, "compressor, a gas cooler, an evaporator, a pressure reducing device and an intermediate heat exchanger" for claims 20 and 22; "a vehicle air conditioner" for claims 21 and 23; must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukumi et al., (JP 1-181095 A). Fukumi et al., disclose a refrigerant flow section (4) connection structure for use in a refrigeration cycle (a refrigerant coupling is a part of a refrigerant cycle having compressor, condenser/gas cooler, expansion device, evaporator which are not shown) comprising a channel member (61/50) having a refrigerant channel communicating with a refrigerant flow section via one end opening thereof, a pipe serving as a refrigerant flow section (4) having a distal end portion fitted into the other end opening of the refrigerant channel of the channel member so as to be connected to the channel member, a fixing member (6) for fixing the pipe to the channel member, and tightening means (75) for joining the channel member (50) and the fixing member (6) together, either the channel member or the fixing member having an engaging portion (62/51) to engage with a portion of the mating fixing member or the mating channel member so as to prevent detachment of the channel member and the fixing member from each other; tightening means (54); an annular projection (41) formed on the distal part of the refrigerant pipe (4); a single bolt/screw 75; inlet header (not shown but inherent); outlet header (22); insertion portion (42) having an inner cylindrical portion; a male pipe portion is the outer cylindrical surface portion of the

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insertion portion (42); a projection portion (62) is provided on the end portion of one channel member (61); a groove (52) is formed on the surface of the projecting portion (62) on which groove (52) the projecting portion (62) is disposed; a side wall of the groove (52) located on the side toward a projecting end (62) of the projecting portion adapted to engage with the projection (62); wherein the distal end portion of the refrigerant pipe (4) is fitted into the opening of the refrigerant channel (50) located opposite the other channel (61); regarding claims 5 and 6, fixing member (6) having a cut out (63) formed at one side thereof. See Fig. 1 and 2 and the abstract. rotating the second channel member about a centerline of the male pipe portion in relation to the first channel member, thereby aligning the threaded hole is an inherent application of assembling the first channel member (61) and second channel member (50) with aligning insertion part 42 with cylindrical part (53) and aligning bolt/screw (75) with screw hole (541) of Fig. 2 of Fukumi et al..

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-9 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukumi et al. Fukumi et al., disclose the invention substantially as claimed as stated above except the projection being adapted to be fitted into the cutout of the fixing member (6) as considered by the examiner. However, Fukumi et al., other fixing

member (500 having a cutout portion (52) at one end and a bolt/screw fixing hole (54) at the other end for the purpose of holding the projection portion (62) and the bolt/screw (75). Therefore, it would have been obvious choice of one having ordinary skill to choose to locate the cutout portion with one or other fixing member in order to fixing a refrigerant pipe with a header pipe. Regarding claim 20 intermediate heat exchanger is a known feature in the art and would be an obvious implementation by an ordinary skill of art in combination with Fukumi et al. Regarding claim 21, a vehicle air conditioner is also known feature in the art and the refrigeration system of Fukumi et al is comparable and obvious to be implemented with a vehicle air conditioning system; regarding claim 22 for intermediate heat exchanger, intermediate heat exchanger is also a known feature in the art and it would be obvious to one of ordinary skill of art to combine such a art having intermediate heat exchanger with Fukumi et al to meet the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD M. ALI whose telephone number is (571)272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad M Ali/  
Primary Examiner, Art Unit 3744